

August 11, 2009

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Request for Interpretation of Section 101.141(a)(3) of the Commission's Rules to Permit the Use of Adaptive Modulation Systems, WT Docket No. 09-106.

Dear Ms. Dortch:

X-DOT, Inc respectfully submits this reply to the comments submitted by Verizon and Verizon Wireless (collectively "Verizon"), AT&T, Inc. ("AT&T"), Clearwire Corporation ("Clearwire") and United States Cellular Corporation ("USCC"). The comments of these companies are collectively referred to below as "**Comments**".



X-DOT, Inc is a microwave system engineering company which has provided microwave path surveying, system design and FCC application services to companies since 1982.

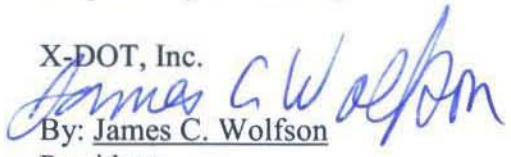
The **Comments** show that many believe that adaptive modulation is a beneficial technology. Following is an example that shows a case where the use of adaptive modulation will not promote spectrum efficiency.

In the **Comments**, USCC commented that "... adaptive modulation might also permit reduced tower loading, allow for smaller antennas ...". USCC also stated that "...carriers might also be able to allow additional collocations on their tower....". The USCC statements are correct when considering the mechanical characteristics and not the electrical characteristics of smaller antennas. In general, in the same frequency band, smaller antennas have poorer discrimination patterns and always have worse front to back ratios when compared to larger antennas. The poorer discrimination of small antennas makes finding interference free frequencies more difficult, if not impossible, which will actually reduce the number of users that may be located on the same tower.

The small antenna issue is only one of many issues associated with the Request, including those mentioned by Verizon, that have a potential to cause spectrum inefficiency and thus limit availability of spectrum for future users.

Respectfully submitted,

X-DOT, Inc.


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